This document provides pertinent information concerning the modification (transfer of ownership) of the VPDES Permit listed below. This permit is being processed as a minor, industrial permit. The listed discharges are the result of stormwater runoff from a bulk oil terminal operation. This permit action consists of updating the proposed effluent limits to reflect the current Virginia WQS, effective 6 January 2011, and updating permit language, as applicable. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9VAC25-260-00 et seq.

1.	Facility Name and Mailing Address:	Lincoln Terminal 22 South Main Street Greenville, SC 29601	SIC Code:	5171 – Petroleum Bulk Stations & Terminals
	Facility Location:	3300 Beulah Salisbury Road Fredericksburg, VA 22401	City:	Fredericksburg
	Facility Contact Name:	Debbie Northcutt	Telephone Number:	864-382-2104
2.	Permit No.:	VA0029785	Expiration Date:	26 March 2011
	Other VPDES Permits:	Not Applicable		
	Other Permits:	VA988226932 – RCRA Registration Number 40558 – Air permit		
	E2/E3/E4 Status:	Not Applicable		
3.	Owner Name:	Lincoln Terminal Company		
	Owner Contact / Title:	Larry G. Burgamy, Jr. / President	Telephone Number:	864-242-3003
4.	Application Complete Date:	5 October 2010		
	Permit Drafted By:	Douglas Frasier	Date Drafted:	24 November 2010
	Draft Permit Reviewed By:	Alison Thompson	Date Reviewed:	2 December 2010
		Bryant Thomas	Date Reviewed:	5 January 2011
	Public Comment Period:	Start Date: 1 March 2011	End Date:	30 March 2011
5.	Receiving Waters Information:	See **Attachment 1** for the Flow Frequency Determination.		
	Receiving Stream Name:	Deep Run, UT	Stream Code:	3-XHT
	Drainage Area at Outfall:	0.07 square miles	River Mile:	0.2
	Stream Basin:	Rappahannock	Subbasin:	None
	Section:	4	Stream Class:	III
	Special Standards:	None	Waterbody ID:	VAN-E20R
	7Q10 Low Flow:	0.0 MGD	7Q10 High Flow:	0.0 MGD
	1Q10 Low Flow:	0.0 MGD	1Q10 High Flow:	0.0 MGD
	Harmonic Mean Flow:	0.0 MGD	30Q5 Flow:	0.0 MGD
	303(d) Listed:	No	30Q10 Flow:	0.0 MGD
	TMDL Approved:	Downstream – bacteria	TMDL Approval:	5 May 2008

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

✓	State Water Control Law		EPA Guidelines
✓	Clean Water Act	✓	Water Quality Standards
✓	VPDES Permit Regulation	✓	Other: 9VAC25-120-10 et seq.
✓	EPA NPDES Regulation		

7. Licensed Operator Requirements: Not Applicable

8. Reliability Class: Not Applicable

9. Permit Characterization:

✓	Private		Effluent Limited		Possible Interstate Effect
	Federal	✓	Water Quality Limited		Compliance Schedule Required
	State	✓	Toxics Monitoring Program Required		Interim Limits in Permit
	POTW		Pretreatment Program Required		Interim Limits in Other Document
	TMDL				

10. Wastewater Sources and Treatment Description:

This facility is a bulk terminal that receives ultra-low sulfur diesel fuel from the Plantation Pipeline Company for storage in six (6) 1-million gallon capacity storage tanks. Fuel is distributed to transport vehicles via a three (3) position loading rack. Gasoline is delivered via transport trucks and stored in two (2) 20,000 gallon underground storage tanks. Fuel is distributed to trucks via a one (1) position loading rack.

- Outfalls 002, 003 and 004 discharge primarily non-contaminated stormwater runoff from driveway areas.
- Internal Outfall 202 receives stormwater runoff from the upper loading rack. Treatment is via a 2,000 gallon oil/water separator (OWS) with final discharge through Outfall 002.
- Hydrostatic test water would discharge via Outfall 007. No discharge has occurred since the last reissuance, but the facility would like to retain the outfall in this reissuance. The facility does not use potable water for testing; rather, it utilizes water from the Rappahannock River.
- Stormwater runoff from the lower loading rack area is intercepted by a 3,000 gallon fiberglass coated steel holding tank. The water level is monitored and the contents are hauled offsite for disposal as needed.
- The groundwater recovery and treatment system discharges via Internal Outfall 203. This system has not been in operation since 2000. The remediation project has been completed.

See **Attachment 2** for the NPDES Permit Rating Worksheet.

See **Attachment 3** for a facility schematic/diagram.

TABLE 1
OUTFALL DESCRIPTION

Number	Discharge Sources	Treatment	Peak Flow*	Latitude / Longitude
002	Stormwater runoff: undeveloped land and driveway areas	None	6.0 MGD	38° 17' 03" / 77° 21' 01"
	Internal Outfall 202: Stormwater runoff: upper loading rack	OWS	0.01 MGD	
003	Stormwater runoff: driveway areas	None	0.01 MGD	
004		None	0.14 MGD	
006	Stormwater from dike area	None	0.28 MGD	
007	Hydrostatic tank test water	None	Dependent on tank size	
203	Groundwater recovery and treatment system	Remediation complete – inactive		

All outfalls converge at one general location at this facility.

*Based on 10 year 24 hour storm of 5.5 inches

See **Attachment 4** for Fredericksburg topographic map.

11. Sludge Treatment and Disposal Methods:

Not Applicable – this is an industrial stormwater discharge and no municipal sludge is generated.

12. Discharges & Monitoring Stations within the Waterbody VAN-E20R:

TABLE 2
DISCHARGES & MONITORING STATIONS

ID / Permit Number	Facility Name	Type	Receiving Stream
3-HAL001.44	DEQ Monitoring Station		Hazel Run
VA0090468	Culpeper Wood Preservers – Ruffin Creek	Stormwater Industrial	Ruffins Pond
VA0067326	The Shockey Precast Group	Municipal Discharge	Massaponax Creek, UT
VA0068934	Glenwood MHC, LLC		Massaponax Creek, UT
VAG110107	Old Castle Precast Incorporated	Concrete General Permits	Massaponax Creek, UT
VAG110200	The Shockey Precast Incorporated		Massaponax Creek
VAG110098	Fredericksburg Concrete		Ruffin Pond, UT
3-MAP002.61	DEQ Monitoring Station		Massaponax Creek
VAR051572	Automatic Rolls of Virginia	Stormwater Industrial General Permits	Massaponax Creek, UT
VAR050897	All Foreign Used Auto Parts Inc.		Falls Run, UT
VAR051832	Summit Recycling		Hazel Run, UT
VAR050853	Norfleet Products Incorporated		Hazel Run
VAR051918	Tru Tech Doors USA Incorporated		Massaponax Creek, UT
VAR050991	Georgia Foam Incorporated		Deep Run
VAR051052	United Parcel Service – Fredericksburg		Deep Run, UT
VAR051090	General Motors Limited Liability Corp		Rappahannock River, UT
VAR050865	Tallant Industries Incorporated		Massaponax Creek
VAR051679	Superior Paving Corporation		Hazel Run, UT
VAR051969	Barker Steel Mid Atlantic LLC		Deep Run
VAR051885	Crossroad Yard Maintenance Facilities		Massaponax Creek
VAR051028	McLane Mid Atlantic		Falls Run & Little Falls
VAR050989	Printpack Incorporated		Deep Run
VAR051621	SMI Rebar Virginia		Massaponax Creek, UT
3-MAP007.97	DEQ Monitoring Station		Massaponax Creek

13. Material Storage:

TABLE 3
MATERIAL STORAGE

Materials Description	Volume Stored	Spill/Stormwater Prevention Measures
Ultra-low Sulfur Diesel Fuel	Six (6) 1-million gallon ASTs	AST dike system
Pre-packaged petroleum products	Various quantities	Protective totes; under roof; BMPs; SPCC

14. Site Inspection: Performed by NRO staff in January 2006 (see **Attachment 5**).

15. Receiving Stream Water Quality and Water Quality Standards:

a. Ambient Water Quality Data

There is no ambient monitoring data available for Deep Run, UT. The nearest DEQ monitoring station is 3-RPP107.91, on the Rappahannock River, approximately 0.25 miles downstream of the facility.

Downstream impairments are noted for Recreational Use due to exceedences of *E. coli* bacteria. The Tidal Freshwater Rappahannock River Bacteria Total Maximum Daily Load (TMDL) was developed and approved by the Environmental Protection Agency (EPA) on 5 May 2008. Even though the receiving stream was not specifically included in this TMDL, all upstream facilities were accounted for during TMDL development. This facility was not assigned a Wasteload Allocation (WLA) for bacteria since this pollutant is not expected to be present in the discharge.

The Rappahannock River has been listed as impaired for Fish Consumption Use due to Polychlorinated Biphenyls (PCBs) found in fish tissue samples. The TMDL is due in 2016; however, it is staff's best professional judgement that this facility does not discharge the pollutant of concern.

The Wildlife Use is considered fully supporting.

b. Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, Deep Run, UT, is located within Section 4 of the Rappahannock River Basin and designated as Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32° C and maintain a pH of 6.0 – 9.0 standard units (S.U.).

Attachment 6 details other Water Quality Criteria applicable to the receiving stream.

Ammonia:

It is staff's best professional judgement that this is not a pollutant of concern since there are no sources on site in appreciable quantities.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). Since there is no ambient or effluent hardness data available, staff guidance suggests using a default hardness value of 50 mg/L $CaCO_3$ for streams east of the Blue Ridge. The hardness-dependent metals criteria in **Attachment 6** are based on this value.

Bacteria Criteria:

The Virginia Water Quality Standards (9VAC25-260-170.A.) establishes the following criteria to protect primary contact recreational uses:

E. coli bacteria per 100 mL of water shall not exceed the following:

	Monthly Geometric Mean[1]
Freshwater *E. coli* (N/100 mL)	126

[1]Four or more samples taken during any calendar month

As stated earlier, *E. coli* bacteria is not expected to be present in this industrial discharge; therefore, limitations will not apply to this facility.

c. Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, Deep Run, UT, is located within Section 4 of the Rappahannock River Basin. This section has not been designated with a special standard.

d. Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was researched on 5 October 2010 for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Dwarf Wedgemussel; Peregrine Falcon; Upland Sandpiper (song bird); Loggerhead Shrike (song bird); Bald Eagle; Green Floater (mussel); Migrant Loggerhead Shrike (song bird). The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

The stream that the facility discharges to is within a reach identified as having an Anadromous Fish Use. It is staff's best professional judgment that the proposed limits are protective of this use.

16. Antidegradation (9VAC25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the critical 7Q10 and 1Q10 flows of 0.0 MGD. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points are equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLAs) are calculated. Even though the critical 7Q10 and 1Q10 flows have been determined to be zero, the discharges, minus Outfall 006 and Outfall 007, are a result of precipitation and it is probable that flow would be present in the receiving stream. However, that flow would be variable depending on the amount of precipitation the area received. Therefore, it is staff's best professional judgement that the WLAs be set equal to the WQS to ensure that the receiving stream is protected at all times. Discharges from Outfall 006 and Outfall 007 would normally occur during the receiving stream's critical flows; therefore, it is staff's determination that the above will be applicable at these two outfalls.

The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency and statistical characteristics of the effluent data.

a. Effluent Screening

Effluent data obtained from the permit application and Discharge Monitoring Reports (DMRs) has been reviewed and determined to be suitable for evaluation. Effluent data indicated there have been no exceedances of the established limitations.

The following pollutant requires a wasteload allocation analysis: Zinc for Outfall 006 and Internal Outfall 202.

b. Mixing Zones and Wasteload Allocations (WLAs)

Wasteload Allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
- f = Decimal fraction of critical flow
- C_s = Mean background concentration of parameter in the receiving stream.

Internal Outfall 202

Since the amount of flow present in the receiving stream would vary during a discharge event, it is staff's best professional judgement that determination of a mixing zone is not possible. Therefore, the WLA will be equal to the C_o to ensure that the water quality criteria are maintained.

Outfall 006 and Outfall 007

The water segment receiving the discharge via the aforementioned Outfalls would most likely occur during the critical 7Q10 and 1Q10 flow periods. As such, there is no mixing zone and the WLA is equal to the C_o.

c. Effluent Limitations – Toxic Pollutants

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

All Outfalls

Ammonia as N:

This is an industrial stormwater discharge and ammonia based products are not utilized or stored at this facility. It is staff's best professional judgement that ammonia is not present; thus, not a pollutant of concern.

Outfall 007

Total Residual Chlorine:

The facility will not be using potable water during hydrostatic testing; therefore, chlorine limitations are not warranted.

Outfall 006 and Internal Outfall 202

Metals/Organics:

See Section 17.e. for further discussion.

Gasoline and petroleum products:

The following pollutants, as applicable to each respective outfall, can be found in the Fact Sheet for the General VPDES Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests (9VAC25-120 et seq.); which was reissued on 26 February 2008:

Internal Outfall 202

Ethanol

Ethanol concentrations in discharges of petroleum products containing greater than 10% ethanol may pose risks to aquatic organisms. For discharge of petroleum products containing greater than 10% ethanol into surface water bodies not designated as a PWS, a maximum discharge limit of 4,100 µg/L is proposed. This same limit also is proposed for saltwater receiving bodies.

Outfall 006, Outfall 007 and Internal Outfall 202

Total Petroleum Hydrocarbons (TPH)

The general permit proposes a technology-based limit of 15 mg/L for the parameter Total Petroleum Hydrocarbons (TPH). This limit is applicable for discharges where the contamination is from petroleum products other than gasoline. It is based on the ability of simple oil/water separator technology to recover free product from water. Wastewater that is discharged without a visible sheen is generally expected to meet this effluent limitation. DEQ has utilized an effluent limitation of 15 mg/L oil & grease for many years in individual permits for potential sources of petroleum hydrocarbons. Recently, the DEQ determined that the oil & grease analytical method is better suited for detection of animal and vegetable fats rather than petroleum. Therefore, the parameter TPH is being limited in the general permit rather than oil & grease.

Outfall 006 and Outfall 007

Naphthalene

The EPA criteria document for naphthalene (EPA 440/5-80-059) gives a chronic effect concentration of 620 µg/L with fathead minnows, but it states that effects would occur at lower concentrations if more sensitive freshwater organisms were tested. According to the ECOTOX DATABASE, naphthalene at a concentration of 1,000 µg/L was lethal to 50% of the water fleas (*Daphnia pulex*) tested (Truco et al. 1983). DeGaere and associates (1982) tested the effects of naphthalene on Rainbow Trout and reported an LC50 concentration of 1600 µg/L. Based upon these more recent studies, it is recommended that the effluent limit for naphthalene in freshwater be set at 10 µg/L.

d. Effluent Limitations and Monitoring – Conventional and Non-Conventional Pollutants

Outfall 006, Outfall 007 and Internal Outfall 202

No changes to the pH limitations are proposed.

pH limitations are set at the water quality criteria.

TPH limitations are based on minimum treatment technology as stated in the current VPDES Permit Manual and 9VAC25-120.

Outfall 006 and Outfall 007

The proposed Naphthalene limitation is a water quality-based limit; per 9VAC25-120.

Internal Outfall 202

Ethanol limitations are based on those limits as set forth in 9VAC25-120.

e. Effluent Limitations – Stormwater Only Pollutants

Outfall 006 and Internal Outfall 202

VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on stormwater outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA. Therefore, in the interim, screening (i.e., decision) criteria have been established at 2 times the acute criteria. These criteria are applied solely to identify those pollutants that should be given special emphasis during development of the Stormwater Pollution Prevention Plan (SWPPP). Any stormwater outfall data (pollutant specific) submitted by the permittee which are above the established monitoring end-point levels requires monitoring in Part I.A. of the permit for that specific outfall and pollutant. Derivation of the acute criteria for zinc is provided in **Attachment 6;** resulting in an acute criterion of 65 µg/L. Monitoring requirements were established for zinc at Outfall 006 and Internal Outfall 202.

Should stormwater data exceed the established monitoring end point of 132 µg/L (2 times the acute criteria); the permittee shall reexamine the effectiveness of the SWPPP and any best management practices (BMPs) in use.

f. Effluent Limitations and Monitoring Summary

The effluent limitations are presented in the following tables. Limits were established for Total Petroleum Hydrocarbons (TPH), Ethanol and pH.

The limits for TPH and Ethanol are based on 9VAC25-120 et seq. and the current VPDES Permit Manual.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfalls 002, 003 & 004 – Non-contaminated Stormwater

The Total Maximum Flow of these Industrial Outfalls is 6.16 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

No monitoring or effluent limitations are proposed for these outfalls.

See Section 20.b. for further discussion.

19b. Effluent Limitations/Monitoring Requirements: Outfall 006 – Stormwater from Dike Area

Maximum Flow at this Industrial Outfall is 0.28 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/M	Estimate
pH	3	NA	NA	6.0 S.U.	9.0 S.U.	1/M	Grab
Total Petroleum Hydrocarbons*	2,4	NA	NA	NA	15 mg/L	1/M	Grab
Naphthalene	2,4	NA	NA	NA	10 µg/L	1/M	Grab
Dissolved Zinc (µg/L)	2	NA	NA	NA	NL	1/Q	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. 9VAC25-120 et seq.

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.

1/M = Once every calendar month.
1/Q = Once every calendar quarter.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B and 8270D. If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons.

The quarterly monitoring periods shall be January through March, April through June, July through September and October through December.
The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

19c. Effluent Limitations/Monitoring Requirements: Internal Outfall 202 – Oil/Water Separator

Maximum Flow at this Industrial Outfall is 0.01 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/M	Estimate
pH	3	NA	NA	6.0 S.U.	9.0 S.U.	1/M	Grab
Total Petroleum Hydrocarbons*	2,4	NA	NA	NA	15 mg/L	1/M	Grab
Ethanol	2,4	NA	NA	NA	4100 µg/L	1/M	Grab
Dissolved Zinc (µg/L)	2	NA	NA	NA	NL	1/Q	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. 9VAC25-120 et seq.

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.

1/M = Once every calendar month.
1/Q = Once every calendar quarter.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B and 8270D. If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons.

The quarterly monitoring periods shall be January through March, April through June, July through September and October through December.
The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

19d. Effluent Limitations/Monitoring Requirements: Outfall 007 – Hydrostatic Test Water

Maximum Flow at this Industrial Outfall is dependent on tank size.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	2/DIS	Estimate
pH	3	NA	NA	6.0 S.U.	9.0 S.U.	2/DIS	Grab
Total Petroleum Hydrocarbons*	2,4	NA	NA	NA	15 mg/L	2/DIS	Grab
Benzene	2,4	NA	NA	NA	50 µg/L	2/DIS	Grab
Ethylbenzene	2,4	NA	NA	NA	320 µg/L	2/DIS	Grab
Toluene	2,4	NA	NA	NA	175 µg/L	2/DIS	Grab
Xylenes, Total	2,4	NA	NA	NA	33 µg/L	2/DIS	Grab
Naphthalene	2,4	NA	NA	NA	10 µg/L	2/DIS	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. 9VAC25-120 et seq.

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.

2/DIS = Two samples per discharge. **

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B and 8270D. If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons.

**The first sample shall be collected during the initial discharge or be a representative sample collected and analyzed prior to the discharge. The second sample shall be collected during the final 20% by volume or the last two (2) feet of the hydrostatic tank test water. Samples shall be collected from the discharge point of the above ground storage tank.

20. Other Permit Requirements:

a. Permit Section Part I.B. contains quantification levels and compliance reporting instructions.

9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

b. Permit Section Part I.C. details the requirements of Stormwater Monitoring and a Stormwater Management Plan.

The Stormwater Pollution Prevention Plan (SWPPP) shall include the goal of reducing pollutants discharged at all regulated outfalls. The permittee shall evaluate the effectiveness of the SWPPP based on the monitoring required in Part I.A. for Outfall 006 and Internal Outfall 202. If the monitoring results show zinc to be at levels exceeding the monitoring end-point, the permittee shall reexamine the SWPPP and any Best Management Practices (BMPs) being used for the affected outfalls. The permittee shall also conduct quarterly visual examinations of the stormwater quality at Outfall 002, Outfall 003 and Outfall 004.

VPDES Permit Regulation, 9VAC25-31-10 defines discharges of stormwater from industrial activity in nine (9) industrial categories. 9VAC25-31-120 requires a permit for these discharges. The Stormwater Pollution Prevention Plan (SWPPP) requirements of the permit are derived from the VPDES general permit for discharges of stormwater associated with industrial activity, 9VAC25-151-10 et seq. VPDES Permit Regulation, 9VAC25-31-220.K, requires the use of Best Management Practices (BMPs) where applicable to control or abate the discharge of pollutants when numeric effluent limits are infeasible or the practices are necessary to achieve effluent limit or to carry out the purpose and intent of the Clean Water Act and State Water Control Law. Quarles Petroleum, Fredericksburg Terminal falls under one of the nine categories of stormwater discharges associated with industrial activity.

The Clean Water Act requires that all NPDES Permits for point source stormwater discharges associated with industrial activity must, at a minimum, establish Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) requirements. This permit establishes BAT/BCT requirements in terms of the continued implementation of the established SWPPP.

Based on EPA guidance and the Department of Environmental Quality best professional judgement, the Stormwater Pollution Prevention Plan consists of four (4) major components – the formation of a pollution prevention team, a description of potential pollutant sources and implementation of measures and controls using Best Management Practices (BMPs). These requirements are defined in Part I.E., of the permit.

c. Permit Section Part I.D. details the Sector Specific Stormwater Pollution Prevention Plan Requirements.

The requirements listed under this section apply to stormwater discharges associated with industrial activity from ground and rail transportation facilities. In addition to the requirements of Part I.D., the SWPPP shall include, at a minimum, those additional items outlined in this section.

21. Other Special Conditions:

a. O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9VAC25-790; VPDES Permit Regulation, 9VAC25-31-190.E. On or before 1 July 2011, the permittee shall submit for approval an Operations and Maintenance (O&M) Manual or a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO). Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

b. Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220.D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.

c. Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:

1). That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

a) One hundred micrograms per liter;

b) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;

c) Five times the maximum concentration value reported for that pollutant in the permit application; or

d) The level established by the Board.

2). That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

a) Five hundred micrograms per liter;

b) One milligram per liter for antimony;

c) Ten times the maximum concentration value reported for that pollutant in the permit application; or

d) The level established by the Board.

d. Oil Storage Ground Water Monitoring Reopener. As this facility currently manages ground water in accordance with 9VAC25-90-10 et seq., Oil Discharge Contingency Plans and Administration Fees for Approval, this permit does not presently impose ground water monitoring requirements. However, this permit may be modified or alternately revoked and reissued to include ground water monitoring not required by the ODCP regulation.

e. Materials Handling/Storage. 9VAC25-31-50.A. prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

f. Hydrostatic Testing. The permittee shall obtain approval from the DEQ Northern Regional Office forty-eight (48) hours in advance of any discharge resulting from hydrostatic testing. The conditions of approval will be contingent on the volume and duration of the proposed discharge and the nature of the residual product.

g. No Discharge of Detergents, Surfactants or Solvents to the Oil/Water Separators. This special condition is necessary to ensure that the oil/water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants and some other solvents will prohibit oil recovery by physical means.

h. Lower Loading Rack Holding Tank. This special condition requires that there shall be no discharge from the 3,000 gallon holding tank for the lower loading rack. The permittee shall monitor the water level in the holding tank weekly and records shall be maintained at the facility.

i. TMDL Reopener. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL that may be developed and approved for the receiving stream.

22. Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. **Changes to the Permit from the Previously Issued Permit:**

a. Special Conditions:

➢ The Best Management Practices (BMP) condition was removed since this is required as part of the Stormwater Pollution Prevention Plan.

b. Monitoring and Effluent Limitations:

➢ Outfall 006 – the limit for Naphthalene was added with this reissuance based on 9VAC25-120.

➢ Internal Outfall 202 – limits for Ethanol were included with this reissuance based on 9VAC25-120 and the current VPDES Permit Manual.

24. **Variances/Alternate Limits or Conditions:** Not Applicable

25. Public Notice Information:

First Public Notice Date: 28 February 2011 Second Public Notice Date: 7 March 2011

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3873, Douglas.Frasier@deq.virginia.gov. See **Attachment 7** for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):

The Tidal Freshwater Rappahannock River Bacteria Total Maximum Daily Load (TMDL) was developed and approved by the Environmental Protection Agency (EPA) on 5 May 2008. This facility was not assigned a Wasteload Allocation (WLA) for bacteria since this pollutant is not expected to be present in the discharge.

The Rappahannock River has been listed as impaired for Fish Consumption Use due to Polychlorinated Biphenyls (PCBs) found in fish tissue samples. The TMDL is due in 2016.

27. Additional Comments:

Previous Board Action(s):	None.
Staff Comments:	None.
Public Comment:	No comments were received during the public notice.
EPA Checklist:	The checklist can be found in **Attachment 8**.

Fact Sheet Attachments

Table of Contents

Quarles Petroleum – Fredericksburg Terminal
VA0029785
2011 Reissuance

To: Anna T. Wes[illegible]ik@WDBRG@DEQ
From: Paul E. Her[illegible]WQA@DEQ
Cc:
Subject: Quarles Petroleum - Fredericksburg
Attachment:
Date: 3/13/00 3:09 PM

Anna,

The Quarles Petroleum - Fredericksburg facility discharges to an unnamed tributary of Deep Run. Tl receiving stream is shown to be a dry ravine on the USGS Fredericksburg Quadrangle topographic n frequencies for dry ravines are 0.0 cfs for the 1Q10, 7Q10, 30Q5, high flow 1Q10, high flow 7Q10, ar mean.

If you have any questions concerning this analysis, please let me know.

Attachment 1

NPDES PERMIT RATING WORK SHEET

[X] Regular Addition
[ ] Discretionary Addition
[ ] Score change, but no status Change
[ ] Deletion

VPDES NO. : VA0029785

Facility Name: Quarles Petroleum Fredericksburg Terminal
City / County: Fredericksburg / Spotsylvania
Receiving Water: Deep run, UT
Waterbody ID: VAN-E20R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

[ ] Yes; score is 600 (stop here) [X] NO; (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

[ ] YES; score is 700 (stop here)
[X] NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 5171 Other Sic Codes: _____ _____ _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
[ ] No process waste streams	0	0	[ ] 3.	3	15	[ ] 7.	7	35
[ ] 1.	1	5	[ ] 4.	4	20	[X] 8.	8	40
[ ] 2.	2	10	[ ] 5.	5	25	[ ] 9.	9	45
			[ ] 6.	6	30	[ ] 10.	10	50

Code Number Checked: 8

Total Points Factor 1: 40

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)			Code	Points
Type I:	Flow < 5 MGD	[ ]	11	0
	Flow 5 to 10 MGD	[ ]	12	10
	Flow > 10 to 50 MGD	[ ]	13	20
	Flow > 50 MGD	[ ]	14	30
Type II:	Flow < 1 MGD	[ ]	21	10
	Flow 1 to 5 MGD	[ ]	22	20
	Flow > 5 to 10 MGD	[ ]	23	30
	Flow > 10 MGD	[ ]	24	50
Type III:	Flow < 1 MGD	[ ]	31	0
	Flow 1 to 5 MGD	[X]	32	10
	Flow > 5 to 10 MGD	[ ]	33	20
	Flow > 10 MGD	[ ]	34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	[ ]	41	0
	10 % to < 50 %	[ ]	42	10
	> 50%	[ ]	43	20
Type II:	< 10 %	[ ]	51	0
	10 % to < 50 %	[ ]	52	20
	> 50 %	[ ]	53	30

Code Checked from Section A or B: 32

Total Points Factor 2: 10

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants
(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)

	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA
Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)

	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 5000 lbs/day	3	15
☐ > 5000 lbs/day	4	20

Code Number Checked: NA
Points Scored: 0

C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)

Nitrogen Equivalent	Code	Points
☐ < 300 lbs/day	1	0
☐ 300 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA
Points Scored: 0
Total Points Factor 3: 0

FACTOR 4: Public Health Impact
Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☒ YES; (If yes, check toxicity potential number below)

☐ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☒ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: 8
Total Points Factor 4: 20

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

		Code	Points
[X]	YES	1	0
[ ]	NO	2	5

C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

		Code	Points
[ ]	YES	1	10
[ ]	NO	2	0

Code Number Checked: A 2 B 1 C NA

Points Factor 5: A 0 + B 0 + C 0 = **0**

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from factor 2) 32

Check appropriate facility HPRI code (from PCS):

	HPRI#	Code	HPRI Score
[ ]	1	1	20
[ ]	2	2	0
[ ]	3	3	30
[X]	4	4	0
[ ]	5	5	20

Enter the multiplication factor that corresponds to the flow code: 0.05

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.05 = 0

B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
[ ]	1	10
[ ]	2	0

C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

	Code	Points
[ ]	1	10
[ ]	2	0

Code Number Checked: A 4 B NA C NA

Points Factor 6: A 0 + B 0 + C 0 = **0**

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	40
2	Flows / Streamflow Volume	10
3	Conventional Pollutants	0
4	Public Health Impacts	20
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	70

S1. Is the total score equal to or grater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below:

Reason: _____

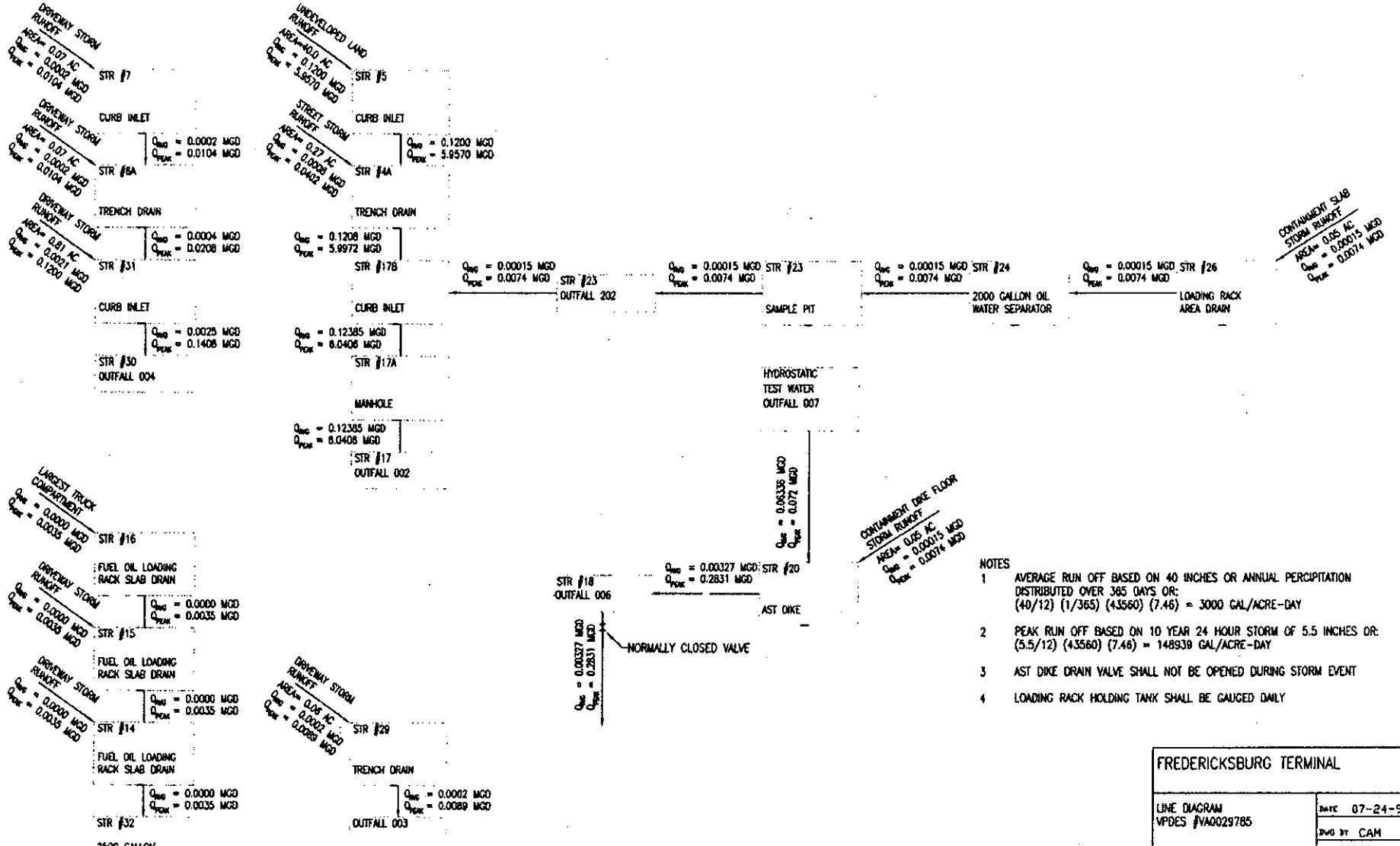
NEW SCORE : 70

OLD SCORE : 70

Permit Reviewer's Name : Douglas Frasier

Phone Number: (703) 583-3873

Date: 16 November 2010



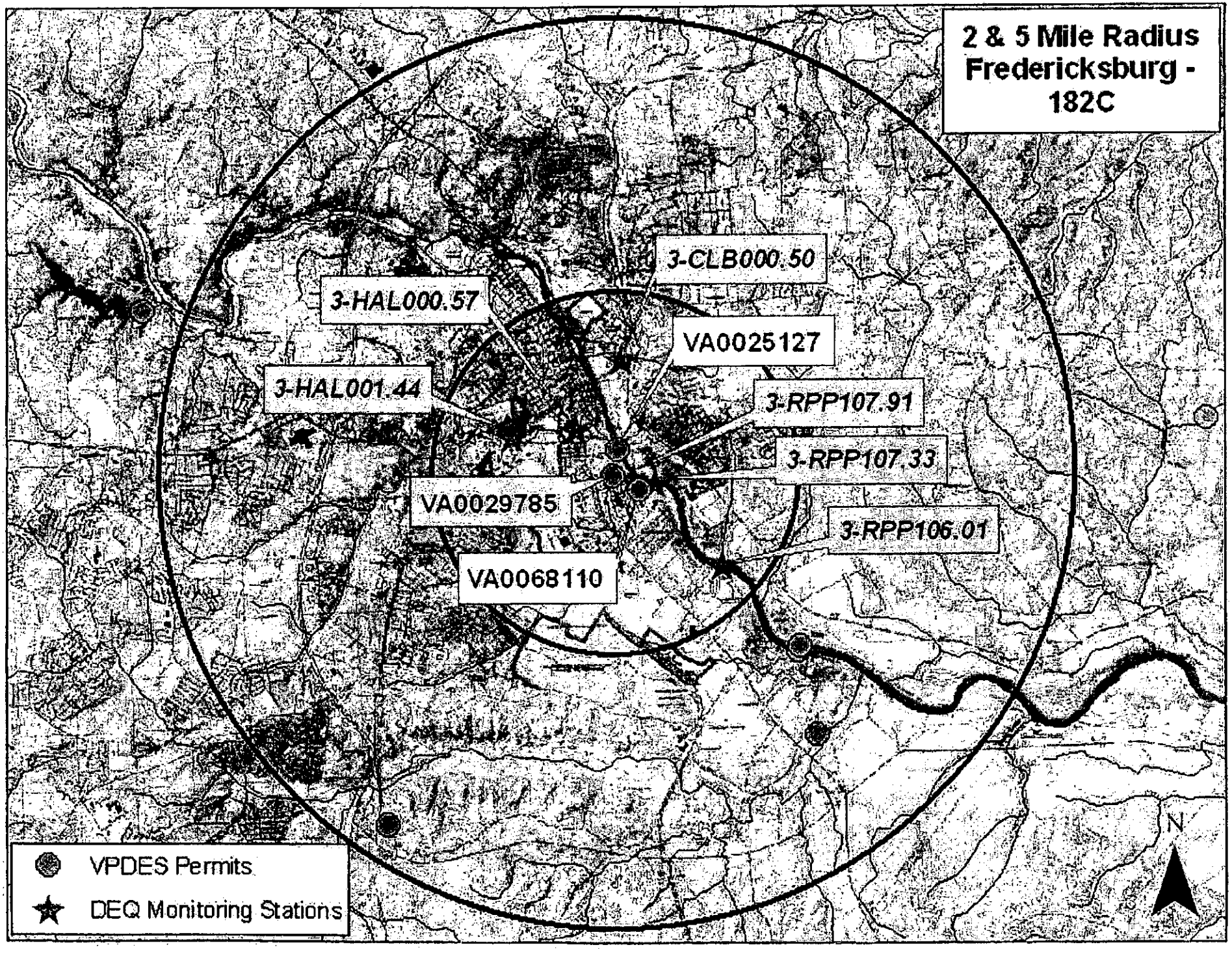
NOTES

1. AVERAGE RUN OFF BASED ON 40 INCHES OR ANNUAL PERCIPITATION DISTRIBUTED OVER 365 DAYS OR: (40/12) (1/365) (43560) (7.46) = 3000 GAL/ACRE-DAY
2. PEAK RUN OFF BASED ON 10 YEAR 24 HOUR STORM OF 5.5 INCHES OR: (5.5/12) (43560) (7.46) = 148939 GAL/ACRE-DAY
3. AST DIKE DRAIN VALVE SHALL NOT BE OPENED DURING STORM EVENT
4. LOADING RACK HOLDING TANK SHALL BE GAUGED DAILY

REV 9/21/10
REV 10-28-94

FREDERICKSBURG TERMINAL	
LINE DIAGRAM VPDES #VA0029785	DATE 07-24-95 DWG BY CAM SCALE 1" = 50'
QUARLES PETROLEUM INC P.O. BOX 5848 FREDERICKSBURG, VA 22403 703-371-3400 FAX 703-899-8848	DWG NO Fredericksburg Terminal VPDES Flow Diag 2010 SHT 1 OF 1

Attachment 3



Attachment 4

MEMORANDUM

TO: File

FROM: Douglas Frasier

DATE: 18 January 2006

SUBJECT: Site Inspection – Quarles Petroleum – VA0029785

Robert Coll and I conducted a site visit at the Quarles Petroleum – Fredericksburg Terminal on 17 January 2006 as part of the permit reissuance. Eric Hiltner provided a tour of the facility. The facility is located at 3300 Beulah-Salisbury Road in Fredericksburg.

The Quarles Petroleum – Fredericksburg Terminal is a bulk oil storage facility. It receives kerosene, low sulfur and high sulfur diesel fuels via the Plantation Pipeline for storage in above ground storage tanks (AST's). Fuel is distributed from the AST's to transport vehicles via a three position loading rack. In addition, High sulfur diesel fuel and gasoline are received from transport delivery vehicles for storage in underground storage tanks (UST's). Fuel is distributed from the UST's at the upper loading rack. Currently, the facility is replacing its AST's and has removed all but four of the existing tanks; construction has begun on two tanks.

Outfalls 002, 003 and 004 discharge primarily non-contaminated stormwater runoff from driveway areas.

Internal Outfall 202 receives stormwater runoff from the upper loading rack. Treatment is via a 2000 gallon oil/water separator with final discharge through Outfall 002.

Outfall 006 discharges the AST area. The stormwater is sampled and analyzed prior to a manual discharge.

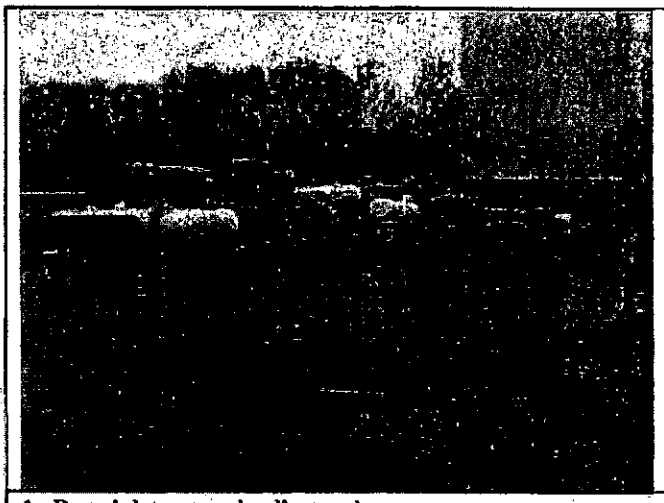
Stormwater runoff from the lower loading rack area is intercepted by a fiberglass coated steel holding tanks and hauled offsite for disposal.

Hydrostatic tank test water discharges via Outfall 007. No testing has occurred since the last permit reissuance; however, the facility would still like to keep it in the permit reissuance.

The groundwater recovery and treatment system discharges via internal Outfall 203. The system has not been in operation since about 2000 and there are no plans to start it up again – confirmed via remediation. Therefore, Outfall 203 will be removed with this reissuance.

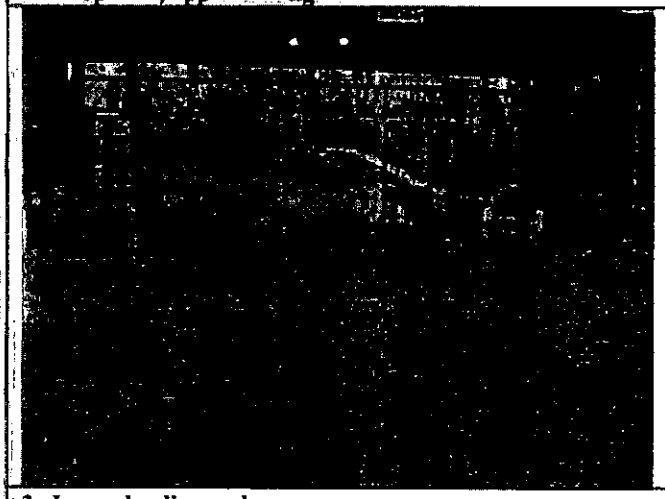
Attachment 5

Quarles Petroleum – Fredericksburg Terminal
VA0029785
Site Visit
17 January 2006



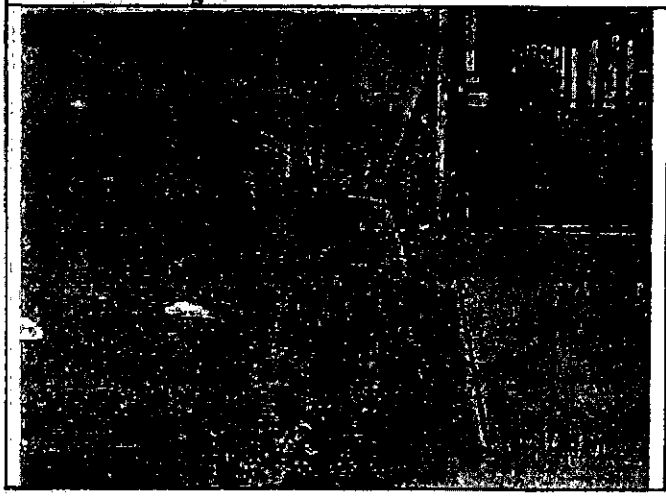
1. Drop inlet, upper loading rack

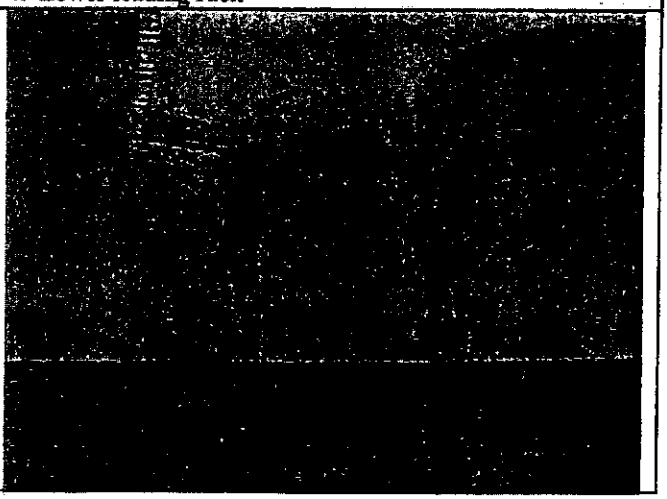
2. Upper loading rack



3. Lower loading rack

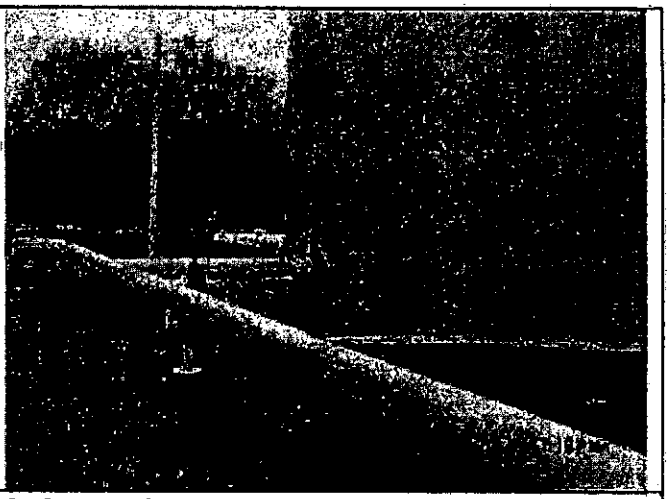
4. Lower loading rack





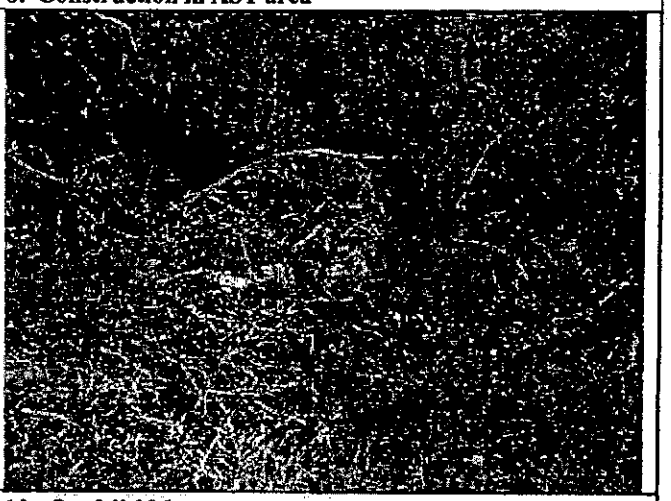
Quarles Petroleum – Fredericksburg Terminal
VA0029785
Site Visit
17 January 2006

7. New tank construction

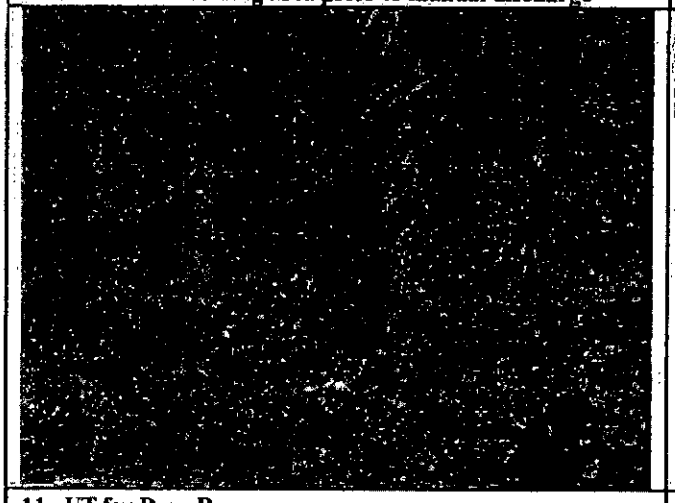


8. Construction in AST area

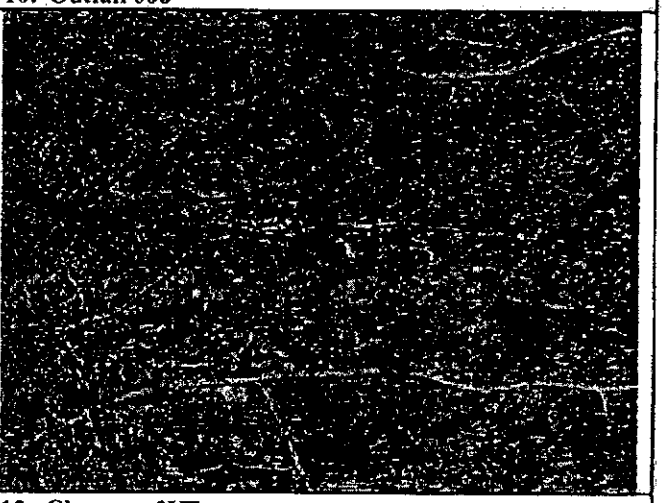
9. Stormwater holding area prior to manual discharge



10. Outfall 006



11. UT for Deep Run



12. Close-up of UT

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Quarles Petroleum Fredericksburg Permit No.: VA0029785

Receiving Stream: Deep Run, UT Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) =	mg/L
90% Temperature (Annual) =	deg C
90% Temperature (Wet season) =	deg C
90% Maximum pH =	SU
10% Maximum pH =	SU
Tier Designation (1 or 2) =	1
Public Water Supply (PWS) Y/N? =	n
Trout Present Y/N? =	n
Early Life Stages Present Y/N? =	y

Stream Flows

1Q10 (Annual) =	0 MGD
7Q10 (Annual) =	0 MGD
30Q10 (Annual) =	0 MGD
1Q10 (Wet season) =	0 MGD
30Q10 (Wet season) =	0 MGD
30Q5 =	0 MGD
Harmonic Mean =	0 MGD

Mixing Information

Annual - 1Q10 Mix =	100 %
- 7Q10 Mix =	100 %
- 30Q10 Mix =	100 %
Wet Season - 1Q10 Mix =	100 %
- 30Q10 Mix =	100 %

Effluent Information

Mean Hardness (as CaCO3) =	50 mg/L
90% Temp (Annual) =	25 deg C
90% Temp (Wet season) =	deg C
90% Maximum pH =	8 SU
10% Maximum pH =	SU
Discharge Flow =	6 MGD

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenapthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	9.3E+00
Acrylonitrile [C]	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	3.0E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	8.41E+00	1.24E+00	na	--	8.4E+00	1.2E+00	na	--	--	--	--	--	--	--	--	--	8.4E+00	1.2E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	8.41E+00	2.43E+00	na	--	8.4E+00	2.4E+00	na	--	--	--	--	--	--	--	--	--	8.4E+00	2.4E+00	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine [C]	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	6.5E+04
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
Cadmium	0	1.8E+00	6.6E-01	na	--	1.8E+00	6.6E-01	na	--	--	--	--	--	--	--	--	--	1.8E+00	6.6E-01	na	--
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	8.1E-03
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03

Attachment 6

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	3.2E+02	4.2E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.2E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene [C]	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	7.0E+00	5.0E+00	na	--	7.0E+00	5.0E+00	na	--	--	--	--	--	--	--	--	--	7.0E+00	5.0E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD [C]	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE [C]	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT [C]	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane [C]	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane [C]	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene [C]	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin [C]	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene [C]	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor [C]	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide [C]	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene [C]	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene [C]	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC [C]	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC [C]	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC [C] (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane [C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone [C]	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	4.9E+01	5.6E+00	na	--	--	--	--	--	--	--	--	--	4.9E+01	5.6E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride [C]	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	1.0E+02	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.0E+02	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine [C]	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine [C]	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine [C]	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total [C]	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	1.4E-02	na	6.4E-04
Pentachlorophenol [C]	0	7.7E-03	5.9E-03	na	3.0E+01	7.7E-03	5.9E-03	na	3.0E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	na	4.0E+00
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	1.0E+00	--	na	--	1.0E+00	--	na	--	--	--	--	--	--	--	--	--	1.0E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	6.5E+01	6.6E+01	na	2.6E+04	6.5E+01	6.6E+01	na	2.6E+04	--	--	--	--	--	--	--	--	6.5E+01	6.6E+01	na	2.6E+04

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information. Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	3.9E-01
Chromium III	2.5E+01
Chromium VI	6.4E+00
Copper	2.6E+00
Iron	na
Lead	3.4E+00
Manganese	na
Mercury	4.6E-01
Nickel	6.8E+00
Selenium	3.0E+00
Silver	4.2E-01
Zinc	2.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of industrial stormwater into a water body in City of Fredericksburg, Virginia.

PUBLIC COMMENT PERIOD: March 1, 2011 to 5:00 p.m. on March 30, 2011

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Stormwater issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Quarles Petroleum, Incorporated
1701 Fall Hill Avenue Suite 200
Fredericksburg, VA 22401
VA0029785

NAME AND ADDRESS OF FACILITY: Quarles Petroleum Fredericksburg Terminal
3300 Beulah Salisbury Road, Fredericksburg, VA 22401

PROJECT DESCRIPTION: Quarles Petroleum, Incorporated has applied for a reissuance of a permit for the private Quarles Petroleum Fredericksburg Terminal. The applicant proposes to release industrial storm water at a rate of up to 6.0 million gallons per day into a water body. There is no sludge generated at this facility. The facility proposes to release the storm water in the Deep Run, UT in City of Fredericksburg in the Rappahannock River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: TPH, Ethanol, Naphthalene, pH and Zinc.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.

Name: Douglas Frasier
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3873 E-mail: Douglas.Frasier@deq.virginia.gov Fax: (703) 583-3821

Attachment 7

Revised 2/2003

State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Quarles Petroleum Fredericksburg Terminal
NPDES Permit Number:	VA0029785
Permit Writer Name:	Douglas Frasier
Date:	29 November 2010

Major [ ] **Minor [X]** **Industrial [X]** **Municipal [ ]**

I.A. Draft Permit Package Submittal Includes:	**Yes**	**No**	**N/A**
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit -- entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?			X
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics	**Yes**	**No**	**N/A**
1. Is this a new or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?			X
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water? **DOWNSTREAM**			X
a. Has a TMDL been developed and approved by EPA for the impaired water? **DOWNSTREAM**	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit? **DOWNSTREAM**	X		
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water? **DOWNSTREAM**		X	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		

Attachment 8

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?	X		
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals
(To be completed and included in the record for all non-POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?			X
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?		X	
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?			X
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	X		
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?			X
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?		X	
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?		X	
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?	X		

II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?	X		
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?	X		
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

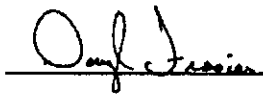
List of Standard Conditions – 40 CFR 122.41

Duty to comply	Property rights	Reporting Requirements
Duty to reapply	Duty to provide information	Planned change
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance
not a defense	Monitoring and records	Transfers
Duty to mitigate	Signatory requirement	Monitoring reports
Proper O & M	Bypass	Compliance schedules
Permit actions	Upset	24-Hour reporting
		Other non-compliance

2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Douglas Frasier
Title	VPDES Permit Writer Senior II
Signature	
Date	29 November 2010